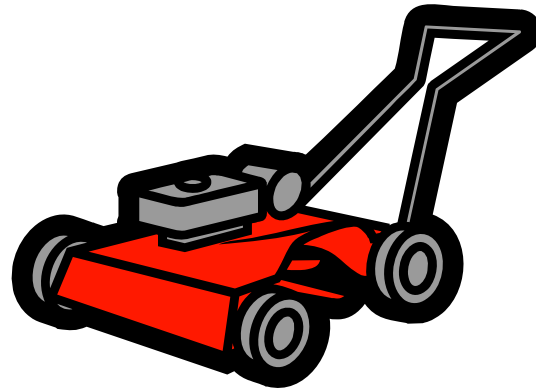


Non-Automotive Gasoline Engines

Recommendations for Further Consideration



Sandy Krietzman
Workgroup Leader
November 14, 2005

Workgroup Background

- Goal: To develop recommendations to control and/or reduce VOC, NO_x and PM emissions from off-road “spark-ignited” engines.
- Examples:
 - Lawn & Garden Equipment
 - Recreational Marine Engines
 - Industrial Forklifts

Workgroup Background

- Members:
 - Representatives from the Marine and Landscaping Industry
 - Educational institution representative
 - State representatives from NJMVC, NJDOT, NJDMAVA, and NJDEP
- Four meetings during the summer of 2005

A vertical blue gradient bar on the left side of the slide, transitioning from a darker blue at the top to a lighter blue at the bottom.

Recommendations for Further Consideration by NJDEP

Categories of Recommended Measures for Further Consideration by NJDEP

- Accelerated Equipment Turnover Programs
- Modification of Activities / Operations
- Educational Programs
- Best Management Practices on Fuel Handling
- Other

Accelerated Equipment Turnover Programs – Voluntary

- Boat engine replacement program
 - Replace older engines with units that meet 2006 model year USEPA or CARB standards
- Commercial landscape equipment replacement program
 - Replace older equipment with equipment meeting the most stringent emission standards
- Replacement of residential gas-powered chainsaws with newer technology
 - Replace gasoline powered chainsaws with either electric chainsaws or cleaner technology

Accelerated Equipment Turnover Programs – Voluntary

- “Star” type recognition programs for landscaping operations using cleaner equipment and practices
 - Similar to the “Energy Star” program

Accelerated Equipment Turnover Programs – Mandatory

- State agencies to purchase equipment that meet the cleanest emission standards
 - Modification of state purchasing contract language

Modification of Activities and Operations – Mandatory

- Restrict government landscaping equipment activities on ozone and/or PM action days
- Restrict use of certain equipment (leaf blowers, trimmers, etc.) on ozone and PM action days

Educational Programs – Voluntary

- Public education on best management practices to reduce emissions
- Public education on alternative, low maintenance landscapes
- Public education on reducing large lawn areas

Best Management Practices on Fuel Handling – Mandatory

- Vapor recovery compatibility for boats that are filled at automobile gas stations
- Vapor recovery for refueling gasoline-powered aircraft
- Insure proper disposal after aircraft “pre-flight” checks

Other

- Evaluate feasibility of low-emitting forklift program when finalized in California
 - Manufacturers required to have retrofit kits available
 - New forklifts required to meet the most stringent emission standards

White Papers Submitted

- National Marine Manufacturers Association and Marine Trades Association of New Jersey
- New Jersey Department of Transportation



Next Steps...

State Team Members

- Sandy Krietzman - Workgroup Leader, NJDEP
- Stella Ononiwu - Facilitator, NJDEP
- Tony Iavarone - NJDEP
- Rich Janiak - NJDEP
- Angela Skowronek - NJDEP
- Jim Arose - NJMVC
- Ken Erick - NJDOT
- Bill McBride - NJDMAVA